

REMARKS

Claims 1 through 5 and 8 are pending in the present application, claims 6 and 7 having been cancelled herein. The Office Action and cited references have been considered. Favorable reconsideration is respectfully requested.

Claims 2 and 3 are rejected under 35 U.S.C. §112, second paragraph. Claims 2 and 3 have been amended to overcome this objection. Claim 3 has been amended to recite a "load specific data value" finding antecedent basis in claim 1. Claim 2 has been amended to recite a last activation of the central processing unit. Applicant respectfully submits that "call" means invocation or activation of the CPU during the working process of one or more programs running on the computer. In fact, this time lapse is load-specific, but not the time since the last call (in the sense of an attempt to access the server computer) of a user computer. Accordingly, applicant has amended the claim to recite "a last activation". In view of these amendments, withdrawal of this rejection is respectfully requested.

Claims 1-3 and 8 are rejected under 35 U.S.C. §103(b) as being anticipated by Yoshinkawa et al ("Using Smart Clients to Build Scalable Services, Abstracts - 1997 Annual Technical Conference).

Claims 1 and 4-6 were rejected under 35 U.S.C. §102(e) as being anticipated by Florman, U.S. patent 6,377,975. Claim 1 was rejected under 35 U.S.C. §102(e) as being anticipated by Ballard, U.S. patent 6,078,960. These rejections are rendered moot by the amendments to claim 1 in which original claims 6 and 7 are incorporated into claim 1 and claims 6 and 7 were deleted. Withdrawal of these rejections is respectfully requested.

Claim 7 was rejected under 35 U.S.C. §103 as being unpatentable over Florman in view of Lin et al, U.S. patent 6,381,748. This rejection is respectfully traversed for the following reasons.

Claim 1 recites a data processing program based operating method for computer networks to control load-balanced access by a user computer to a server computer in a computer network with multiple user and server computers. According to the claimed method all server computers (S1-S5) continually determine the load of their central processing unit - CPU load - and store at least one load-specific data value in a configuration that can be called up over the computer network (1); all server computers (S1-S5) wait for datagrams (2, 5) stemming from user computers (U1-U5) in the computer network (1), which incorporate a header to call up

load-specific data values; a user computer (U3) seeking access to the server computer (S1-S5) with a lowest CPU load sends a datagram (2, 5) over the computer network (1) to the server computers (S1-S5), with a header to call up the CPU load; the server computers (S1-S5) each send back a reply datagram (3.1-3.5; 6.1-6.5) over the computer network (1) to the user computer (U3) with the load-specific data value; the user computer (U3) analyzes the reply datagrams (3.1-3.5; 6.1-6.5) to determine which server computer (S1-S5) has the lowest CPU load; and access is initiated to the server computer (S1, S2) with the lowest CPU load. The user computer (U3) seeking access sends a user identification parameter that is representative for this user computer (U3), specifically a user identification number (userID) and an associated domain name, to the server computers (S1-S5) and the server computers (S1-S5) transmit datagrams (6.1-6.5) with additional information on the active or interrupted program sessions for the user computer (U3) seeking access to enable the user computer (U3) to re-establish interrupted program sessions on at least one (S4) of the server computers (S1-S5). This is not taught, disclosed or made obvious by the prior art of record.

The subject matter of amended claim 1 includes another functionality under load-balancing which allows

improved handling of user computer access requests. In particular, the underlying problem is that in server-client-networks program, sessions of a certain user computer running on a server computer may be disconnected, e.g. due to an external disturbance. In this state the user computer tries to re-establish this program session by seeking access to one of the server computers and starting the program again on that server computer which has the lowest CPU load at that instant.

As can readily be seen, this way of communication fails to assure the possibility that the user computer re-establishes the interrupted program session running on the server computer before the interruption or disconnection. The program session is rather newly started on another server leading to an unnecessary performance loss.

The method according to amended claim 1 avoids this disadvantage as, on the one hand, the user computer sends identification parameters to the server computers, and on the other hand, the server computers transmit additional information on active or interrupted program sessions for this user computer seeking access. This enables the user computer to realize that on a certain server computer an interrupted or disconnected program session, which is to be continued, is available. In this case, the user computer does not access the server computer with the lowest CPU load but the server

computer on which the disconnected program session of the user computer is "waiting" to be continued.

In the Official Action, the examiner indicated that the subject matter of claim 6 is inherently disclosed in Florman, column 4, lines 1-4. However, this passage just generally discloses the fact that the client (via its agent 62) receives a bid by each server to indicate the server load. There is no explicit, and not even inherent, disclosure about any identifying information exchanged between the requesting client and the servers.

As concerns original claim 7, which is also incorporated into claim 1, the examiner cited to Lin and alleged that by disclosing a list of session status for each client in Fig. 4, column 5, lines 17-27 of this reference, the subject matter of claim 7 is obvious. However, Lin refers to a network access "using a set top box and television" (see title of the invention) which is different to a client-server-network allowing load-balancing. Lin teaches the providing of information from an internet gateway video server 110 (see Fig. 1) by means of a session manager 214 (see Fig. 2) to the set top boxes 112 of several "users". "Users" in this context is not a user computer, but persons using this set top box 112 on their TV 114 to get access to the Internet. Inasmuch the

Lin system is located in totally different "surroundings", it is non-analogous art. One of ordinary skill would not have been motivated to look to this type of art to solve the problems in load-balancing in server-client-network programs. Thus, not only does Lin not disclose applicant's claimed invention, but the asserted combination would not have been obvious to one of ordinary skill in the art.

Finally, none of the cited references discloses the fact that due to the exchange of information between server and user computers about the identity of the users and the status of program sessions on the respective servers the re-establishing of disconnected or interrupted program sessions on a server computer by "bypassing" the load-balancing function is possible. Thus, the subject matter of claim 1 is novel and inventive over the cited prior art.

For at least these reasons, applicant respectfully submits that claim 1 is patentable over the prior art of record. Claims 2-5 and 8 are believed to be patentable in and of themselves and as they depend from and include the recitations of claim 1 which is patentable for the reasons discussed above.

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If the examiner has any questions, he is invited to
contact the undersigned at: 202-628-5197.

Respectfully submitted,

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